

## 3.12 TRANSPORTATION AND CIRCULATION

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This section is based on the traffic impact report prepared by Fehr and Peers, Inc. Transportation Consultants in July 2005, which is contained in Appendix K of this EIR. The purpose of this section is to present the salient discussions, conclusions, and recommendations contained in the traffic report, in a manner which is succinct and accessible to the lay reader. For detailed supporting analysis, the reader is referred to the traffic report in Appendix K.

### 3.12.1 Environmental Setting

#### EXISTING ROADWAY SYSTEM

The project site is served by a circulation system comprised of regional highways, arterials and collector streets, which are illustrated in **Figure 3.12-1**. The main roadways serving the project site are discussed below.

**U.S. Highway 101** extends northward through the cities of San José and San Francisco and southward along the California Central Coast. U.S. Highway 101 is a six-lane freeway (three mixed flow lanes in each direction) between Cochrane Road and Monterey Street in the City of Gilroy. North of Cochrane Road to San José, U.S. Highway 101 provides three mixed-flow lanes and one High Occupancy Vehicle (HOV) lane in each direction. The interchange at Cochrane Road provides access to the project site.

**Monterey Road** provides regional access to the cities of Gilroy and San José and local access within the City of Morgan Hill. North of Cochrane Road, Monterey Road is four-lanes wide. Within Morgan Hill, Monterey Road is a four-lane arterial with on-street parking and left-turn lanes at intersections.

**Cochrane Road** is a four-lane, divided arterial that extends eastward from its intersection with Monterey Road through a partial-cloverleaf interchange at U.S. Highway 101. East of U.S. Highway 101, Cochrane Road is a two-lane road that extends eastward to Anderson Reservoir and then southward to its terminus at the Main Street/Liberata Drive intersection.

**Main Avenue** is a two-lane, arterial roadway that intersects Monterey Road and extends eastward over U.S. Highway 101. East of U.S. Highway 101, Main Avenue becomes a two-lane road that intersects Condit Road and Elm Street.

**Dunne Avenue** is a four-lane divided arterial that intersects Monterey Road, Butterfield Boulevard, Condit Road, and Hill Road. Dunne Avenue includes a partial cloverleaf interchange with U.S. Highway 101, and east of U.S. Highway 101, Dunne Avenue becomes a two-lane roadway at Hill Road.

**Murphy Avenue** is a north-south roadway that extends between Diana Avenue and Middle Avenue on the east side of U.S. Highway 101. Murphy Avenue currently provides one

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travel lane in each direction. The City of Morgan Hill's General Plan designates Murphy Avenue as a four-lane arterial that will be extended to the north and connect with DePaul Drive.

**Tennant Road** is a four-lane, divided east-west arterial between Monterey Road and U.S. Highway 101. East of U.S. Highway 101, Tennant Road is a two-lane rural road that extends eastward and intersects Condit Road.

**Butterfield Boulevard** is a four-lane, divided arterial that extends southward from its intersection with Cochrane Road to Tennant Avenue and is a primary corridor through the City. Butterfield Boulevard forms the eastern boundary of downtown Morgan Hill.

**De Paul Drive** (formerly known as Saint Louise Drive) is a two-lane local street that terminates south of Cochrane Road. The De Paul Medical Center Outpatient Building is the primary use serviced by this street.

**Mission View Drive** is a two-lane, north-south rural road between Cochrane Road and Half Road.

**Half Road** is a two-lane, east-west rural road between Condit Road and Peet Road. Half Road intersects both Mission View Drive and Elm Road.

**Condit Road** is a two-lane rural road that extends southward from Half Road to Tennant Road.

#### INTERSECTION LEVEL OF SERVICE OPERATIONS

The intersections of the study roadways are a key component of the roadway system. These are the "nodes" that connect each segment of the system. Intersections are usually the critical elements of the roadway system in assuring adequate capacity, minimizing delays, maximizing safety, and minimizing level of service impacts. Therefore, the analysis of project impacts on the roadway system focuses on intersection operations.

The operating condition of an intersection is typically described in terms of "Level of Service" (LOS), which is a quantitative measurement of the effect of various factors on traffic operating conditions, including travel speed, travel time, delay, freedom to maneuver, safety, driving comfort, and convenience. LOS is measured on a qualitative scale ranging from LOS A (the best) to LOS F (the worst). The level of service calculation methodology for intersections is dependent on the type of traffic control device: traffic signals or stop signs. The level of service methodology analyzes an intersection's operation based on average control vehicular delay. The methodology applied to a particular intersection depends upon whether it is signalized or unsignalized. The level of service definitions for signalized intersections are presented in Table 3.12-1. The LOS definitions



Not to Scale



**FIGURE 3.12-1**  
**CIRCULATION AND STUDY INTERSECTIONS**

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for unsignalized intersections are provided in the traffic impact analysis included as Appendix K.

**TABLE 3.12-1**  
**SIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS**

Level of Service	Description	Average Control Delay Per Vehicle (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	≤ 10.0
B+	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 12.0
B		12.1 to 18.0
B-		18.1 to 20.0
C+	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 23.0
C		23.1 to 32.0
C-		32.1 to 35.0
D+	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 39.0
D		39.1 to 51.0
D-		51.1 to 55.0
E+	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	55.1 to 60.0
E		60.1 to 75.0
E-		75.1 to 80.0
F	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.	> 80.0

Source: VTA's CMP Traffic Level of Service Analysis Guidelines, June 2003, and Transportation Research Board, Highway Capacity Manual, 2000

For purposes of the traffic impact analysis, the following 15 intersections were evaluated for potential impacts. These intersections are shown in **Figure 3.12-1**, with the intersection locations on the figure keyed to the numbering assigned below. All intersections are signalized except where noted.

- |  |  |
|--|--|
| 1. Cochrane Road/Monterey Road                         | 8. Cochrane Road/Mission View Drive        |
| 2. Cochrane Road/Butterfield Boulevard                 | 9. Main Avenue/Monterey Road               |
| 3. Cochrane Road/Sutter Boulevard                      | 10. Main Avenue/Butterfield Boulevard      |
| 4. Cochrane Road/Cochrane Plaza                        | 11. Main Avenue/Condit Road                |
| 5. Cochrane Road/Southbound US 101 Ramp                | 12. Dunne Avenue/Monterey Road             |
| 6. Cochrane Road/Northbound US 101 Ramp (unsignalized) | 13. Dunne Avenue/Butterfield Boulevard     |
| 7. Cochrane Road/De Paul Drive (unsignalized)          | 14. Dunne Avenue/ Northbound US 101 Ramp   |
|  | 15. Tennant Avenue /Northbound US 101 Ramp |

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The operations of key intersections were evaluated during the morning (AM), evening (PM), and Saturday mid-day peak hours for the following scenarios:

- Existing Conditions - Existing volumes obtained from traffic counts.
- Background Conditions - Existing peak-hour traffic volumes plus traffic generated from approved, but not yet constructed developments in the area.
- Project Conditions – Background peak-hour traffic volumes plus traffic generated by the proposed project.
- Cumulative No Project Conditions – Existing peak hour volumes plus traffic generated by approved and pending projects.
- Cumulative Plus Project Conditions – Cumulative No Project volumes plus traffic generated by the proposed project.
- General Plan 2025 Conditions – Volumes predicted for the Year 2025 with the currently approved General Plan plus traffic generated for the proposed project.

The City of Morgan Hill applies operating standards of LOS E at freeway ramp intersections and LOS D+ for all other signalized and unsignalized intersections, except Madrone Parkway/Monterey Road, Tennant Avenue/Butterfield Boulevard, and Watsonville Road/Monterey Road where LOS D is considered acceptable (See Section 3.12.3 below for detailed Standards of Significance).

As shown in **Table 3.12-2**, the Level of Service calculations indicate that all of the study intersections operate at acceptable LOS D+ or better under existing conditions.

#### FREEWAY OPERATIONS

The level of service for freeway segments is evaluated based on density of flow as expressed in passenger cars per mile per lane. The freeway LOS evaluation by Fehr & Peers found that the existing levels of service on the adjacent segments of U.S. Highway 101 are LOS D or better during the AM, PM, and Saturday peak hours. (See the traffic report in Appendix K for detailed analysis and tables).

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**TABLE 3.12-2**  
**EXISTING INTERSECTION LEVELS OF SERVICE**

Intersection	Intersection Control	Peak Hour <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>
1. Cochrane Road/Monterey Road	Signal	AM PM SAT	20.2 25.0 23.5	C+ C C
2. Cochrane Road/Butterfield Boulevard	Signal	AM PM SAT	12.8 11.8 10.0	B B+ A
3. Cochrane Road/Sutter Boulevard	Signal	AM PM SAT	20.4 15.2 13.6	C+ B B
4. Cochrane Road/Cochrane Plaza	Signal	AM PM SAT	18.6 30.5 22.8	B- C C+
5. Cochrane Road/Southbound US 101 Ramp	Signal	AM PM SAT	13.0 13.5 19.0	B B B-
6. Cochrane Road/Northbound US 101 Ramp	Signal	AM PM SAT	10.6 10.5 10.2	B+ B+ B+
7. Cochrane Road/De Paul Drive	Stop Sign	AM PM SAT	11.3 11.2 10.1	B B B
8. Cochrane Road/Mission View Drive	Stop Sign	AM PM SAT	13.9 10.8 10.5	B B B
9. Main Avenue/Monterey Road	Signal	AM PM SAT	27.4 24.0 21.8	C C C+
10. Main Avenue/Butterfield Boulevard	Signal	AM PM SAT	37.3 36.9 31.5	D+ D+ C
11. Main Avenue/Condit Road	Signal	AM PM SAT	12.3 9.7 9.9	B A A
12. Dunne Avenue/Monterey Road	Signal	AM PM SAT	36.9 38.7 30.3	D+ D+ C
13. Dunne Avenue/Butterfield Boulevard	Signal	AM PM SAT	33.4 35.9 29.7	C- D+ C
14. Dunne Avenue/ Northbound US 101 Ramp	Signal	AM PM SAT	15.2 12.8 9.7	B B A
15. Tennant Avenue/Northbound US 101 Ramp	Signal	AM PM SAT	25.1 21.7 19.6	C C+ B-
<p>Notes:</p> <p><sup>1</sup> AM = Morning peak-hour, PM = Evening peak-hour, SAT = Saturday midday peak-hour.</p> <p><sup>2</sup> Whole intersection weighted average control delay expressed in seconds per vehicle for signalized intersections using methodology described in the 2000 <i>Highway Capacity Manual</i>, with adjusted saturation flow rates to reflect Santa Clara County conditions. For two-way stop controlled unsignalized intersections, total control delay for the worst movement/approach, expressed in seconds per vehicle, is presented. Calculations conducted using the TRAFFIX level of service analysis software package.</p> <p><sup>3</sup> LOS = Level of service</p>				

Source: Fehr & Peers, 2005

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### TRANSIT SERVICE

Bus service in the City of Morgan Hill is provided by the Santa Clara Valley Transportation Authority (VTA), which operates Local Routes 15, 16, and 68, and Express Bus Route 521 in the project vicinity. The nearest existing bus stop to the project site is located on Mission View Drive south of Cochrane Road.

Commuter rail service is provided by CalTrain. Frequent train service is provided between San José and San Francisco and extended service to Morgan Hill and Gilroy during commute hours.

### PEDESTRIAN AND BICYCLE FACILITIES

Pedestrian facilities include sidewalks, crosswalks, and pedestrian signals. Near the project site, sidewalks are provided on both sides of Cochrane Road across its interchange with U.S. Highway 101. Sidewalks also exist on the south side of Cochrane Road east of Mission View Drive and on the east side of Mission View Road south of Cochrane Road.

### 3.12.2 REGULATORY SETTING

#### CITY OF MORGAN HILL GENERAL PLAN

The following *City of Morgan Hill General Plan* goals and policies on transportation and circulation are relevant to the proposed project:

#### Circulation

- Goal 3** A coordinated, continuous network of streets and roads.
- Policy 3c** Require developers to provide for the construction of their portion of arterial and collector streets at the time of development.
- Policy 3d** As the design criteria for roadway improvements, use LOS E at freeway ramp intersections and LOS D+ or better elsewhere, except use LOS D at the following intersections) where achieving LOS D+ would require extraordinary development expenditure and right-of-way acquisition):
- Tennant Avenue and Butterfield Boulevard
  - Watsonville Road and Monterey Road
- Policy 3g** Require development that occurs along arterial streets to obtain access through a local street or minor entrance and not through curb cuts directly onto the arterial street wherever possible.
- Policy 3h** Require Planned Unit Developments (PUDs) for commercial, office or industrial uses at the intersection of Highway 101 and arterial streets (as



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designated on the Circulation Element Map) to take access from a public street intersecting with the arterial street at a minimum distance of 600 feet from the freeway on and off ramps unless the City Engineer finds that direct access to the arterial street or closer access will meet safety standards or that mitigating actions will be taken to ensure safe access and minimum interference with traffic flows.

**Goal 5** Adequate off-street parking.

**Policy 5a** Ensure that all developments provide adequate and convenient parking.

**Goal 6** A safe and efficient transportation system that reduces congestion by providing viable non-automotive modes of transportation.

**Policy 6f** Support a Countywide car/vanpool matching program.

**Policy 6g** Support Countywide programs to encourage employers to promote use of mass transportation.

**Policy 6h** Encourage employers to provide a flexible set of working hours to ease traffic congestion.

**Goal 7** A useable and comprehensive bikeway system that safely connects neighborhoods with workplaces and community destinations.

**Policy 7h** Where feasible, implement the bikeways system concurrent with adjacent development.

**Policy 7i** Bicycle parking facilities shall be provided at all schools, parks, recreation facilities, commercial centers, civic buildings (including the library), transit centers, and work places based on the recommendations and standards in the Bikeways Master Plan.

**Goal 8** Expanded pedestrian opportunities.

**Policy 8a** Ensure adequate pedestrian access in all developments, with special emphasis on pedestrian connections in the downtown area, in shopping areas and work centers, including sidewalks in industrial areas.

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### 3.12.3 Impacts and Mitigation Measures

#### STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and standards used by the City of Morgan Hill. For purposes of this EIR, the transportation and circulation impacts associated with the proposed project are considered to be significant if the following would result from implementation of the proposed project:

#### Roadways

- An increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system, as defined below:

#### Signalized Intersections

For this analysis, traffic impacts at signalized intersections are defined to occur when the addition of project traffic causes:

- Intersection operations at freeway ramp intersections to deteriorate from an acceptable level of service (LOS E or better) under Background Conditions to an unacceptable level (LOS F); or
- Exacerbation of unacceptable operations at freeway ramp intersections by increasing the average critical delay by more than four seconds and increasing the volume-to-capacity (V/C) ratio by 0.01 or more at an intersection operating at LOS F under Background Conditions.
- Intersection operations at non-freeway ramp intersections to deteriorate from an acceptable level (LOS D+ or better) under Background Conditions to an unacceptable level (LOS D, E, or LOS F); or
- Exacerbation of unacceptable operations at non-freeway ramp intersections by increasing the average critical delay by more than four seconds and increasing the volume-to-capacity (V/C) ratio by 0.01 or more at an intersection operating at LOS D, E, or F under Background Conditions.
- A decrease in the average critical delay and an increase in the V/C ratio of 0.01 or more for an intersection operating at an unacceptable level (LOS D, E, or F for non-freeway intersections and LOS F for freeway ramp intersections).

#### Unsignalized Intersections

For this analysis, traffic impacts at unsignalized intersections are defined to occur when the addition of project traffic causes:

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- Intersection operations to deteriorate from an acceptable level under Background Conditions (LOS D+ or better) to an unacceptable level (LOS D or worse); or
- The exacerbation of operations at an unsignalized intersection already operating at an unacceptable level (LOS D or worse) under Background Conditions and the Caltrans Peak Hour Volume Warrant is met under Project Conditions.

#### Freeway Segments

The Congestion Management Program (CMP) defines a project as having a significant impact on a freeway segment if:

- The addition of project traffic causes the operating level of a freeway segment to deteriorate from LOS E (or better) under Existing Conditions to LOS F; or
- The number of new trips added by a proposed project to a segment already operating at LOS F under Existing Conditions is more than one percent of the freeway segment capacity.

#### **Project Access and On-Site Circulation**

- Creates project access and internal circulation conditions which are potentially disruptive to efficient internal traffic flow; or
- Creates project access and internal circulation conditions, which are potentially hazardous to motorists, pedestrians, and/or bicyclists.

#### **Transit Facilities**

- Creates the demand for public transit service above that which is provided, or planned to be provided;
- Disrupts or interferes with existing or planned public transit services or facilities; or
- Creates an inconsistency with policies concerning transit systems set forth in the *City of Morgan Hill General Plan*.

#### **Bicycle and Pedestrian Facilities**

- Disrupts or interferes with existing or planned bicycle or pedestrian facilities;
- Creates potentially hazardous conditions for bicyclists or pedestrians;
- Creates an unmet need for bicycle or pedestrian facilities; or
- Creates an inconsistency with policies related to bicycle or pedestrian systems in the General Plan of the City of Morgan Hill.

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### Parking

- Results in on-site parking supply, which is insufficient to meet the needs of the planned land uses.

### METHODOLOGY

The following impact evaluation is based on the technical analysis contained in the traffic impact report prepared by Fehr & Peers in April 2005, which is contained in Appendix K of this EIR. The methods used in various aspects of the technical analysis are fully explained in the traffic impact report, and are summarized as appropriate in the following discussion of impacts.

### PROJECT IMPACTS AND MITIGATION MEASURES

#### Intersection Level of Service Impacts

**Impact 3.12-1** With the addition of project-generated traffic, significant level of service impacts would occur at two intersections, as follows:

- a) The Dunne Avenue/Monterey Road signalized intersection is projected to operate unacceptably during the PM peak hour under both Background and Project Conditions. Although the addition of project traffic causes a decrease (i.e., improvement) in the average critical delay, the critical volume-to-capacity ratio increases by more than 0.01. This is considered a **significant impact**.
- b) At the Cochrane Road/Mission View Drive unsignalized intersection, the addition of project traffic is expected to reduce acceptable levels of service under Background Conditions to an unacceptable level of service (LOS F) during the AM, PM, and Saturday midday peak hours. This is considered a **significant impact**.

#### Background Conditions

The impacts of the proposed project were evaluated by comparing the results of the level of service calculations under 'Project Conditions' to the results under 'Background Conditions.' Traffic volumes for Background Conditions were estimated by adding existing volumes and traffic generated by approved but not yet constructed and occupied developments in the study area.

The results of the intersection level of service analysis for the key intersections under Background Conditions are presented in **Table 3.12-4** on page 16. The intersection of Dunne Avenue and Monterey Road is projected to degrade to LOS D, an unacceptable level, during the PM peak hour under Background Conditions. The remaining intersections

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are projected to operate at acceptable levels (LOS D+ or better for non-freeway and LOS E for freeway intersections) during each peak hour period.

#### **Project Conditions**

##### Project Land Uses

For purposes of this analysis, the proposed project includes 590,100 square feet of retail space, a 12-position fuel station, and 63,200 square feet of movie theater space (up to 14 screens). (It should be noted that the preliminary site plan, dated March 10, 2005, shows the fuel station as an optional use on Pad 2, and that the primary proposed use for this pad is 6,000 square feet of retail space. However, since the 12-position fuel station would generate substantially more traffic than the planned retail space for this location, the traffic impact analysis is based on development of Pad #2 with a fuel station in order to present a worst-case analysis. In addition, it should be noted that the current site plan dated March 10, 2005 shows a total retail floor area (including garden center) of 588,050 square feet, assuming fuel station use for Pad 2. This is 2,050 square feet less than the floor area used in the traffic analysis, which was based on a previous version of the site plan. Since the traffic analysis is therefore based on a project size which is approximately 0.4 percent larger than currently proposed, the resulting calculations may be slightly conservative; however, the difference is not great enough to affect the findings, conclusions, or recommendations contained in the EIR).

##### Project Roadway Improvements

According to the preliminary site plan, the main project driveway on Cochrane Road would form the new north leg of the Cochrane Road/De Paul Drive intersection and provide full access (left and right-turns in and out). The site plan indicates that Mission View Drive will be extended northward and six project driveways on this street will be provided. The southernmost driveway on Mission View Drive is assumed to be limited to right-turns in and out. Full access is assumed at the remaining five driveways.

The proposed project includes signalization of the Cochrane Road/De Paul Drive intersection. The following lane geometry is assumed:

- Northbound (De Paul Drive): one shared left/through lane and one right-turn lane.
- Westbound (Cochrane Road): one left-turn lane, two through lanes, and one right-turn lane.
- Southbound (project driveway): one shared left/through lane and two right-turn lanes with a separate overlap phase.
- Eastbound (Cochrane Road): two left-turn lanes, one through lane, and one shared through/right-turn lane.

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The proposed project will also construct a portion of the ultimate planned width of the extension of Mission View Drive north of Cochrane Road along the project frontage. The following lane configuration is assumed for the unsignalized intersection at Cochrane Road/Mission View Drive:

- Northbound and Southbound (Mission View): one left-turn lane and one shared through/right-turn lane.
- Westbound (Cochrane Road): one left-turn lane and one shared through/right-turn lane.
- Eastbound (Cochrane Road): one shared left-turn/through lane and one right-turn lane.

#### Project Trip Generation and Distribution

The amount of traffic generated by a development is estimated by applying the appropriate trip generation rates, corresponding to the land use type, to the size of the development. Trip generation rates for “Shopping Center,” “Gas Station with Car Wash and Convenience Market,” and “Multi-Plex Movie Theater” land uses from *Trip Generation* (Institute of Transportation Engineers, 7<sup>th</sup> Edition) were used to estimate the number of project trips. The shopping center rate accounts for the proposed retail and restaurant uses at the site.

A reduction of 25 percent was applied to the shopping center trips to account for pass-by and diverted link trips during the peak hours. Pass-by trips are trips to the project site made by vehicles already traveling by the project site on the adjacent street (i.e., these vehicles make an interim stop between their primary origin and destination). Diverted link trips are trips made by vehicles that make a detour to access the project site. For the traffic impact analysis, diverted link trips consist of trips made by vehicles already on U.S. Highway 101. Pass-by and diverted link trips are included in the analysis of traffic that enters and exits the project site, but are not considered “new” trips added to the larger street system by the proposed project. To reflect the lower volume of traffic on roadways during non-peak hours, a lower pass-by/diverted link reduction of 20 percent was applied to daily trips. The trips associated with the gas station were also reduced to account for pass-by and diverted link trips. Based on information provided in the ITE manual, a reduction of 40 percent was used for this land use.

Some movie theater patrons may also visit the project’s retail and restaurant uses. To account for the internalization of trips within the site, a 20 percent reduction was applied to peak hour movie theater trip generation. A lower internalization reduction of 10 percent was applied to daily trips to reflect the lower volume of traffic on roadways during non-peak hours.

The project trip generation estimates are presented in **Table 3.12-3**. The proposed retail development is estimated to generate 22,009 net new daily trips, 533 net new AM peak-

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hour trips, 1,869 net new PM peak-hour trips, and 2,415 net new Saturday midday peak-hour trips. The project trips were distributed onto the local roadway system based on existing travel patterns in the vicinity and the relative locations of complementary land uses.

**TABLE 3.12-3  
PROJECT TRIP GENERATION ESTIMATES**

Item	Weekday	AM Peak Hour			PM Peak Hour			Sat Peak Hour		
	Total	In	Out	Total	In	Out	Total	In	Out	Total
<b>Trip Rates</b>										
Shopping Center (ksf)	36.49	0.63	0.40	1.03	1.64	1.78	3.42	2.42	2.23	4.65
Gas-Service Station (Fueling Position)	152.84	5.43	5.21	10.64	6.67	6.67	13.33	9.44	9.07	18.50
Movie Theater (screen)	292.50	0.0	0.0	0.0	13.81	9.21	23.02	14.38	5.59	19.97
<b>Trip Estimates</b>										
Shopping Center (590.1 ksf)	21,530	371	237	608	970	1,050	2,020	1,427	1,317	2,744
Gas-Service Station (12 Fueling Positions)	1,834	65	63	128	80	80	160	113	109	222
Movie Theater (14 screens)	4,095	0	0	0	193	129	322	201	79	280
<b>Gross Project Trips</b>	<b>27,459</b>	<b>436</b>	<b>300</b>	<b>736</b>	<b>1,243</b>	<b>1,259</b>	<b>2,502</b>	<b>1,741</b>	<b>1,505</b>	<b>3,246</b>
Shopping Center Pass-by/Diverted Trip Reduction <sup>2</sup>	-4,306	-76	-76	-152	-253	-252	-505	-343	-643	-686
Gas-Service Station Pass-by/Diverted Trip Reduction (40%)	-734	-26	-25	-51	-32	-32	-64	-45	-44	-89
Theater Internalization <sup>3</sup>	-410	0	0	0	-32	-32	-64	-28	-28	-56
<b>Net New Project Trips</b>	<b>22,009</b>	<b>334</b>	<b>199</b>	<b>533</b>	<b>926</b>	<b>943</b>	<b>1,869</b>	<b>1,325</b>	<b>1,090</b>	<b>2,415</b>

Notes:

<sup>1</sup> Trip rates are expressed as trips per 1,000 s.f. (ksf) or per screen.

<sup>2</sup> Pass-by/Diverted trip reduction 20 percent daily and 25 percent during peak hour.

<sup>3</sup> Internalization trip reduction 10 percent daily and 20 percent during peak hour.

Source: Fehr & Peers, 2005

#### Project Intersection Levels of Service

Level of service calculations were conducted for the study intersections to evaluate the potential impacts of the proposed project on the local roadway system under 'Project Conditions.' Background Conditions serves as the base against which project impacts were evaluated. **Table 3.12-4** contains the intersection level of service results. The results for Background Conditions, as well as projected increases in critical delay and critical volume-to-capacity ratios with the project, are presented for comparison purposes.

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**TABLE 3.12-4  
BACKGROUND AND PROJECT INTERSECTION LEVELS OF SERVICE**

Intersection	Peak Hour <sup>1</sup>	Background		Project			
		Delay <sup>2</sup>	LOS <sup>3</sup>	Delay	LOS	Δ in Crit. V/C <sup>4</sup>	Δ in Crit. Delay <sup>5</sup>
1. Cochrane Road/Monterey Road	AM	20.5	C+	20.7	C+	+0.012	+0.2
	PM	25.7	C	25.4	C	+0.045	-0.1
	SAT	24.4	C	26.4	C	+0.130	+0.1
2. Cochrane Road/Butterfield Blvd.	AM	13.2	B	13.4	B	+0.030	+0.5
	PM	12.3	B	13.5	B	+0.113	+2.1
	SAT	10.9	B+	12.7	B	+0.140	+2.7
3. Cochrane Road/Sutter Boulevard	AM	20.6	C+	20.7	C+	+0.021	+0.3
	PM	15.4	B	16.3	B	+0.081	+1.0
	SAT	13.6	B	13.3	B	+0.081	-0.6
4. Cochrane Road/Cochrane Plaza	AM	18.7	B-	18.6	B-	+0.018	+0.2
	PM	28.1	C	26.8	C	+0.075	-0.5
	SAT	23.4	C	22.9	C+	+0.072	+0.2
5. Cochrane Road/SB US 101 Ramp	AM	13.3	B	14.2	B	+0.063	+0.9
	PM	14.6	B	23.6	C	+0.230	+14.7
	SAT	19.9	B-	25.7	C	+0.338	+6.7
6. Cochrane Road/NB US 101 Ramp	AM	11.3	B+	13.4	B	+0.165	+2.7
	PM	10.9	B+	25.0	C	+0.565	+16.6
	SAT	10.8	B+	63.4	E	+0.834	+66.0
7. Cochrane Road/De Paul Drive <sup>6</sup>	AM	12.0	B	16.2	B	NA	NA
	PM	12.6	B	22.1	C+	NA	NA
	SAT	11.2	B	27.6	C	NA	NA
8. Cochrane Road/Mission View Dr. <sup>7</sup>	AM	16.9	C	>100	F	NA	NA
	PM	12.7	B	>100	F	NA	NA
	SAT	12.3	B	>100	F	NA	NA
9. Main Avenue/Monterey Road	AM	27.8	C	27.8	C	+0.003	+0.0
	PM	24.3	C	24.7	C	+0.040	+0.8
	SAT	22.0	C+	22.5	C+	+0.052	+0.9
10. Main Avenue/Butterfield Blvd.	AM	38.2	D+	38.4	D+	+0.012	+0.4
	PM	37.5	D+	37.6	D+	+0.043	+0.5
	SAT	31.9	C	32.2	C-	+0.058	+0.9
11. Main Avenue/Condit Road	AM	12.3	B	12.8	B	+0.022	+0.5
	PM	9.8	A	11.4	B+	+0.088	+2.3
	SAT	9.9	A	11.2	B+	+0.099	+1.8
12. Dunne Avenue/Monterey Road	AM	37.9	D+	38.2	D+	+0.012	+0.6
	PM	39.5	D	40.7	D	+0.043	-0.4
	SAT	30.9	C	31.9	C	+0.056	+0.9
13. Dunne Avenue/Butterfield Blvd.	AM	35.3	D+	35.4	D+	+0.007	+0.4
	PM	37.6	D+	38.1	D+	+0.011	+0.6
	SAT	30.3	C	30.7	C	+0.024	-0.2
14. Dunne Avenue/ NB US 101 Ramp	AM	15.5	B	15.5	B	+0.001	-0.0
	PM	12.8	B	12.7	B	+0.003	-0.1
	SAT	9.9	A	9.8	A	+0.005	-0.1
15. Tennant Avenue/NB US 101 Ramp	AM	25.5	C	26.7	C	+0.025	+1.6
	PM	22.0	C+	23.6	C	+0.068	+2.0
	SAT	19.9	B-	22.6	C+	+0.099	+3.2

Table continued on next page.



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Table 3.12-4 (Continued)

Notes:	
<sup>1</sup>	AM = Morning peak-hour, PM = Evening peak-hour, SAT = Saturday midday peak-hour.
<sup>2</sup>	Whole intersection weighted average control delay expressed in seconds per vehicle for signalized intersections using methodology described in the <i>2000 Highway Capacity Manual</i> , with adjusted saturation flow rates to reflect Santa Clara County conditions. For two-way stop controlled unsignalized intersections, total control delay for the worst movement/approach, expressed in seconds per vehicle, is presented. LOS calculations conducted using the TRAFFIX level of service analysis software package.
<sup>3</sup>	LOS = Level of service
<sup>4</sup>	Change in critical movement delay between Background and Project Conditions. A decrease in the critical delay indicates project trips were added to movements with low delays thus causing a decrease in the overall critical delay.
<sup>5</sup>	Change in the critical volume-to-capacity ratio (V/C) between Background and Project Conditions.
<sup>6</sup>	Intersection is analyzed as unsignalized under Background Conditions, and with a traffic signal and additional lanes under Project Conditions.
<sup>7</sup>	Intersection is analyzed as unsignalized under Background, and with additional lanes under Project Conditions.
Significant impacts are designated in <b>bold</b> type.	

Source: Fehr & Peers, 2005

The addition of project traffic is estimated to cause the unsignalized intersection of Cochrane Road/Mission View Drive to operate at unacceptable levels of service during all peak hours under Project Conditions. The proposed project would exacerbate unacceptable operations at the Dunne Avenue/Monterey Road intersection during the PM peak hour. This is considered a **significant impact**. (It should be noted that this impact remains unchanged with implementation of programmed traffic-calming improvements along nearby segments of Monterey Road, as well as optimization of signal phasing.) Implementation of the following mitigation measures would reduce this impact to a **less than significant level**.

### Mitigation Measures

**MM 3.12-1a** At the Dunne Avenue/Monterey Road intersection, the westbound right-turn lane shall be restriped as a shared through/right-turn lane, and a northbound right-turn overlap phase shall be installed. This improvement would be required when 35 percent of the project has been constructed based on total PM peak hour trip generation.

These modifications would improve the average delay to 38.6 seconds (LOS D+) during the PM peak hour. Based on preliminary field measurements these improvements will not likely require right-of-way acquisition to implement.

The addition of the shared through/right-turn westbound lane requires two receiving lanes for some distance on the west-leg of the intersection. Using Caltrans design standards, the length of the transition from two lanes to one lane would be approximately 200 feet. Based on the roadway width of the west leg, this improvement should be able to be accommodated within the existing right-of-way. In addition, the proposed mitigation to the westbound approach (east-leg) would require the elimination of the striped bike lane on this approach if no additional widening occurred. Currently, the bike lane does not

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continue across Monterey Road to the west, but the General Plan includes a future bike lane on Dunne Avenue on both sides of Monterey Road.

**MM 3.12-1b** At the Cochrane Road/Mission View Drive intersection, a traffic signal shall be installed with protected left-turn phasing on all approaches. In addition, this intersection shall be reconfigured to include the following geometry:

- The northbound approach should include one left-turn lane and one shared through/right-turn lane.
- The westbound approach should include one left-turn lane, one through lane, and one shared through/right-turn lane.
- The southbound approach should include one left-turn lane, one shared through/right-turn lane, and one right-turn lane.
- The eastbound approach should include one left-turn lane, one through lane, and one right-turn lane.

With the above-mentioned roadway geometry and the required traffic signal, the intersection is expected to operate at LOS C or better during all peak hours. (Note: The proposed stacking and queuing distances along the Cochrane Road project frontage (as shown on the proposed site plan) were determined to be adequate for the proposed project. For detailed discussions regarding stacking and queuing distances, refer to the traffic report in Appendix K.)

#### Freeway Level of Service Impacts

**Impact 3.12-2** The addition of project-generated traffic would have a **significant impact** on the level of service at the segment of U.S. Highway 101 between Tennant Avenue and Dunne Avenue.

The five segments of U.S. Highway 101 from Burnett Avenue south to San Martin Avenue were evaluated to determine if a significant amount of project traffic would be added to these segments during the AM and PM peak hours. (Evaluation of peak Saturday conditions is not required under the CMP guidelines, and Caltrans' data indicates that weekend peak hour volumes are approximately 25 percent lower than weekday peak hour volumes in the project vicinity.) The freeway level of service analysis found that the segment of U.S. Highway 101 between Tennant Avenue and Dunne Avenue in the northbound direction during the AM peak hour currently operates at an unacceptable level of service (LOS F), and the project is expected to add a volume greater than one percent of the capacity to this segment. The capacity for the segment of U.S. Highway 101 between Tennant Avenue and Dunne Avenue is 6,900 vehicles. Therefore, one percent of capacity is 69 trips. The

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project is anticipated to generate 87 trips along this segment during the AM peak hour, which exceeds the one percent threshold by 18 vehicle trips. Therefore, the proposed project will **have a significant impact** on this segment of U.S. Highway 101. All four of the other freeway segments in the project vicinity would continue to operate at LOS E or better with the addition of project traffic. (See traffic report in Appendix K for freeway LOS table and further discussion.)

#### Mitigation Measure

**MM 3.12-2** The project shall implement the applicable actions listed in the *Immediate Implementation Action List* contained in the *Deficiency Plan Guidelines* of the County's Congestion Management Program, which are intended to encourage the use of non-automobile transportation modes and to help maximize the efficiency of the existing transportation system.

The *Immediate Implementation Action List* comprises a general listing of the types of the measures which can be implemented by project sponsors and/or lead agencies. The listed actions which can be implemented at the project-specific level include: improvements to bicycle and pedestrian facilities; improvements to public transit facilities; and information programs to encourage TDM (Transportation Demand Management) measures such as carpooling. (The full list is contained in Appendix H of the traffic report which is contained in Appendix K of this EIR.) The proposed project would implement several of these action items, either as part of the proposed project or as mitigation measures (for transportation and/or air quality impacts) identified elsewhere in this EIR. These actions include:

- Pedestrian circulation system improvements including sidewalks along project frontages, crosswalks at adjacent intersections and project driveways, internal project sidewalks and marked pedestrian paths providing internal pedestrian circulation;
- Bicycle system improvements including dedication of right-of-way for Class II bike lane along project street frontages, and installation of on-site bicycle storage facilities;
- Transit improvements such as provision of transit stop on project Cochrane Road frontage, and posting of transit schedule and fare information on project employers' bulletin boards;

However, the implementation of these measures would not reduce the project traffic contribution to this freeway segment to less than one percent of current volumes. Therefore, the impact would not be reduced to less-than-significant levels and the project traffic would result in a **significant and unavoidable impact** to this freeway segment.

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### Site Access

**Impact 3.12-3** The six entry driveways on Mission View Drive are more than are needed to provide adequate access to the proposed project. This condition unnecessarily increases the potential for vehicle conflicts with pedestrians. This is considered a **significant impact**.

Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

### Mitigation Measure

**MM 3.12-3** The two driveways shown directly behind the movie theater complex on Mission View Drive (i.e., the second and third driveways north of the Cochrane Road intersection) should be eliminated from the proposed project, and a circulation aisle should be provided behind the movie theater complex.

The remaining four intersections would be able to accommodate the volume of traffic anticipated to enter the project site from Mission View Drive.

### Site Access

**Impact 3.12-4** At the southernmost project driveway on Mission View Drive (i.e., the first driveway north of the Cochrane Road intersection), the preliminary site plan shows no left-turn restrictions. Given the close proximity of this driveway to Cochrane Road, if left turns into the project site are allowed at this driveway, this could result in potential conflicts with vehicles queuing on the north leg of the Mission View/Cochrane intersection. This is considered a **significant impact**.

Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

### Mitigation Measure

**MM 3.12-4** The southernmost project driveway should be designated as a right-turn in and out only driveway (i.e., signs should be posted prohibiting left turn movements into or out of the project site at this driveway).

### On-Site Circulation

**Impact 3.12-5** The main north-south circulation aisle that extends north into the project from De Paul Drive is a long straight section that may encourage speeding

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without traffic control devices. This is considered a **potentially significant impact**.

Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

#### Mitigation Measure

**MM 3.12-5** The following modifications are identified on the main north-south circulation aisle to discourage speeding and provide more visible crosswalks for pedestrians:

- a) At the first intersection north of Cochrane (i.e., between Shops K and Pad 7, and between Shops B and Pad 2), stop signs should be installed on the side street approaches;
- b) At the second intersection north of Cochrane, provide one of the following alternative configurations:
  - i) Provide raised intersection to provide vertical displacement, and provide stop signs on the side street approaches; or
  - ii) Provide stop signs on all four approaches;
- c) At the third intersection north of Cochrane, provide stop signs on all four approaches.

#### **On-Site Circulation**

**Impact 3.12-6** At the southwest corner of the building "Major 8" (on March 10, 2005 site plan), the proximity of the designated loading zone to the nearby intersection of two major internal drive aisles could create a driving hazard due to driver confusion. This is considered a **potentially significant impact**.

Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

#### Mitigation Measure

**MM 3.12-6** The designated loading zone shall be relocated far enough to the east to allow the intersection approach lane to be reduced to one lane.

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### Public Transit Facilities

**Impact 3.12-7** Due to demand for transit service generated by the project, existing transit facilities may not be adequate to serve the project. This is considered a **potentially significant impact**.

It was determined by Fehr & Peers that the existing transit route serving the project site has sufficient capacity to accommodate transit riders generated by the project. However, the existing bus stop on Mission View Drive south of Cochrane is not well situated to serve the project. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

#### Mitigation Measure

**MM 3.12-7** The project applicant shall construct a new bus stop along the project frontage, including transit amenities such as a bus turnout, a shelter, and benches.

### Pedestrian Facilities

**Impact 3.12-8** The preliminary project site plan does not indicate pedestrian crossing facilities at the major intersections adjacent to the project; unless these are provided, a hazard to pedestrian circulation could result. This is considered a **potentially significant impact**.

The site plan shows that a continuous sidewalk will be constructed along the entire frontages on Cochrane Road and Mission View Drive. Designated pedestrian paths are also shown linking the street sidewalks to all of the on-site buildings. However, the site plan does not show pedestrian crossings at the major intersections adjacent to the project. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

#### Mitigation Measure

**MM 3.12-8** Pedestrian crosswalks shall be provided on all four legs of the Cochrane Road/Mission View Drive intersection, and at all but the west leg of the Cochrane Road/De Paul Drive intersection.

The operation of double southbound right-turn lanes at the De Paul Drive/ Cochrane Road intersection is not conducive to pedestrian travel across the west leg because of limited sight distance. Therefore, a separate pedestrian signal phase would be required for safe pedestrian crossing. Since this would degrade overall intersection operations, a crosswalk at the west leg is not recommended.

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### Bicycle Facilities

**Impact 3.12-9** The proposed project would create a demand for bicycle facilities, including:  
a) bicycle racks or lockers within the project site; and b) bicycle lanes along the project frontages. This is considered a **potentially significant impact**.

The preliminary project site plan makes no apparent provision for such bicycle facilities. Policy 71 in the *City of Morgan Hill General Plan* requires bicycle parking facilities to be provided at all commercial centers. In addition, the General Plan Bikeways Plan shows dedicated Class II bicycle lanes along both sides of Cochrane Road, De Paul Drive, and Mission View Drive. With the change in status of De Paul Drive in the General Plan Amendment, proposed in conjunction with the proposed project, it is not clear if the City's policy intent is to provide bicycle lanes along the extension of De Paul Drive into the project site. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

#### Mitigation Measure

**MM 3.12-9** The following bicycle facilities shall be incorporated into the project:

- a) Bicycle racks and/or lockers to accommodate bicycle travel by customers and employees. Bicycle parking facilities should be located in high visibility areas in order to encourage bicycle travel and discourage theft and vandalism.
- b) Class II bicycle lanes along the project street frontages.

### Parking

**Impact 3.12-10** The proposed project may not provide sufficient parking supply to meet the demand generated by the planned project land uses. This is considered a **potentially significant impact**.

The number of parking spaces provided on the preliminary site plan is 3,025 stalls. (This total applies to both the retail and fuel station alternatives for Pad 2, which both show 12 spaces.) It should also be noted that the following analysis of parking supply is based on the preliminary project site plan dated March 10, 2005, which shows a total retail floor area of 594,050 square feet of shopping center space, not including cinema. The land use for Pad #2 is assumed to be the 6,000 square feet of retail shown on the site plan, since this represents a worst-case scenario for parking demand relative to the optional fuel station planned for Pad #2.

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The City of Morgan Hill parking code requirements designate parking supply ratios for various land uses. The proposed project includes a combination of commercial land uses, including retail, restaurant (both sit-down and fast food), and movie theater. Although the code includes parking supply ratios for all of these independent uses, the amount of retail and restaurant space to be developed at the project has not been determined by the applicant. Since the City's code does not include a broader 'shopping center' category combining both uses, City staff determined that it would be appropriate to use the Institute of Traffic Engineers (ITE) parking supply rate for 'shopping center,' an action which is provided for in the Municipal Code for situations where the code does not include a particular land use category.

The parking supply required for the proposed project was therefore determined through application of the Municipal Code parking requirements for the movie theater land use, with ITE rate shopping center rate used for retail and restaurant space, as discussed.

A second methodology for calculating parking supply, using only ITE parking rates for both the movie theater and shopping center categories, was also applied. This methodology is somewhat more refined since it incorporates the fact that different land uses have different peak times of use, such that a certain number of parking spaces that would normally be required through application of the City requirements (and are really only needed during peak or near-peak parking demand periods) would actually function as shared parking spaces. The shared parking methodology is explained in further detail below, along with the calculation of parking demand under this methodology.

It is important to note at the outset that although the ITE parking supply rate for shopping centers includes some allowance for restaurants, the specific ratio of restaurants contemplated in the ITE rate is not known, but is believed to be minor. Since restaurants (both sit-down and fast food) generate far greater parking demand than retail uses, the parking calculation under both methodologies discussed below would tend to underestimate actual parking demand for the project if a substantial number of restaurants are ultimately proposed.

#### Required Parking Supply Based on City Code

As discussed above, the ITE peak-parking rate for 'shopping center' was used to calculate the City parking requirement for retail and restaurant space. The peak rate is 3.21 spaces per 1,000 square feet of space. The ITE rate does not include a circulation factor (i.e., additional spaces to facilitate parking turnover during peak demand periods and thus avoid conditions where drivers must circulate through the project site and wait for spaces to become available). Therefore, a circulation factor of 10 percent was added to the peak rate, resulting in a required parking rate of 3.53 spaces per 1,000 square feet or one space per 283 square feet. (It should be noted that municipal parking rates typically incorporate



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a similar 10 percent circulation factor within their required parking rates, although this is not usually stated).

For movie theater space, the City of Morgan Hill code requires 1 space for every 3.5 seats or one space per 32 square feet of usable seating area (whichever is greater). The rate of 1 space per 3.5 seats was used in this analysis to estimate the movie theater parking supply because the exact size of usable movie theater space is unknown at this time.

These rates result in a required supply of 2,956 spaces (i.e., 594,050 square feet retail space at 1 space per 283 square feet equals 2,099 spaces; 3,000 seats at 1 space per 3.5 seats equals 857 spaces). Therefore, the proposed parking supply of 3,025 spaces shown on the preliminary site plan exceeds the supply requirement indicated under this methodology by 69 spaces, or approximately three percent of the total provided.

#### Shared Parking Analysis

Although City parking codes are typically designed for peak or near-peak demand conditions, the actual times of peak parking demand for the different land uses within a project will occur at different times. Using individual peak rates and not adjusting for different peaking characteristics of different land uses can produce a situation where an oversupply of parking is created. By recognizing when the peak periods for the various land uses occur, one land use could actually utilize the temporary surplus of parking from a neighboring land use during non-peak parking demand times for that neighboring land use. Parking supply requirements can be calculated to reflect such “shared parking” conditions, and thereby reduce overall parking requirements that better reflect the actual demand characteristics associated with the mix of uses in a particular project.

The Institute of Transportation Engineers’ (ITE) *Parking Generation* (3<sup>rd</sup> Edition) provides peak parking demand rates for various land uses. It indicates when the peak parking demand (i.e., 100 percent) occurs for each land use, and for every hour of the day it also indicates the percent of peak parking demand that would occur at those times. By reviewing the peak demand rates for all proposed land uses, the peak time of the aggregate peak parking demand can be determined for all proposed land uses. In the case of this project, the peak hour for aggregate parking demand is 1 PM on a weekend day. The overall project parking requirement was calculated by taking the peak demand rate for each land use and multiplying by the percentage of peak use that occurs at 1 PM on a weekend day for that land use. The overall “shared parking” requirement for peak weekday conditions was also calculated. (These calculations are provided in the traffic report in Appendix K).

The shared parking analysis for the weekend day shows that the projected peak parking demand would be 2,750 spaces at 1:00 PM. This overall demand includes a ten percent circulation factor, as was applied under the first methodology above. The proposed supply

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of 3,025 spaces shown on the preliminary project site plan would exceed the peak weekend parking requirement indicated through application of this methodology by 275 spaces, or 10 percent of the total.

The results of the weekday shared parking analysis show that the expected peak demand would be 1,712 spaces at 1:00 PM. This demand also includes a ten percent circulation factor. Therefore, the proposed supply of 3,025 spaces indicated on the project site plan would meet the peak weekday parking requirement of 1,712 spaces indicated under this methodology.

#### Impact Assessment

As noted at the outset of this discussion, both of the above methodologies could underestimate actual parking demand for the project. This is because both methods utilize the ITE shopping center rate to encompass both retail and restaurant uses. This is generally a valid approach since the ITE shopping center rate does include some provision for restaurants, although the proportion of restaurants assumed in the rate is not known. (It is also a necessary approach since the proportion of restaurant space to be included in the project has not yet been determined). However, given that the parking demand rates for all types of restaurants are substantially higher than the shopping center rate, it is reasonable to conclude that the proportion of restaurants contemplated in the ITE shopping center rate is relatively minor. (This was confirmed by Fehr & Peers, who calculated that approximately 25,000 square feet of sit-down restaurant space could be accommodated by the 3,025 parking spaces without resulting in an overall parking deficiency for the project. If fast-food restaurants are included, this maximum floor area could increase somewhat as the proportion of fast-food restaurants increases since the parking ratio for fast food is lower than for an equivalent area of sit-down restaurant. Assuming a mix of roughly 65 percent fast-food to 35 percent sit-down restaurant by floor area, the maximum floor area for restaurants would be approximately 31,000 square feet without resulting in a parking deficiency.) Therefore, if the amount of restaurant space ultimately proposed exceeds these maximums, the project would potentially face a parking deficiency unless the parking supply is increased, and/or overall project floor area is reduced, and/or the mix of other uses is modified (i.e., some proportion of a land use with high parking demand such as cinema is replaced with a land use with lower parking demand such as retail).

Environmental documents prepared under CEQA, including supporting technical reports on traffic and parking impacts, are to assume reasonable worst-case conditions in the absence of specific project information. In the case of the proposed project, there is a likelihood that a parking deficiency of undetermined magnitude will occur if more restaurant space than the maximum amount indicated above is included in the project. This represents a significant impact of the proposed project. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

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### Mitigation Measure

**MM 3.12-10** The overall number of parking spaces included in the project shall be required to meet the aggregate parking demand of the various land uses proposed within the project, to be determined as follows:

At the time of subsequent discretionary approval (e.g., use permit, design review) for each individual restaurant pad or space, the parking supply provided for each such pad or space shall meet the peak parking demand for the specific type of restaurant proposed (e.g., sit-down, fast food), as determined through either the applicable City code parking requirement, or through application of the ITE shared parking rates for 1 PM on a weekend day (plus 10 percent). After the center is 75 percent built-out on the basis of floor area (assuming the cinemas have been completed), the calculation of parking requirements for new restaurant uses may be adjusted based on the results of physical parking surveys conducted at the center by a qualified transportation consultant during the peak usage period. (If the cinemas have not been completed upon 75 percent project completion, then the buildout threshold for such calculations shall be 85 percent of project buildout.) As a guide to the approximate maximum floor area of restaurant that can be constructed without resulting in a parking deficiency for the project, the maximum floor area can range from 25,000 square feet (assuming 100 percent sit-down restaurant) to 41,000 square feet (assuming 100 percent fast-food restaurant), although the actual maximum will fall between these numbers if the project ultimately includes a mix of the two restaurant types. (These maximum figures assume floor areas for all other project uses will remain as proposed on the May 2, 2005 project site plan.)

### CUMULATIVE IMPACTS AND MITIGATION MEASURES

#### Cumulative Intersection Level of Service Impacts

**Impact 3.12-11** The addition of project-generated traffic would result in cumulative level of service impacts at the Cochrane Road/Mission View Drive intersection. This is considered a **significant cumulative impact**.

Cumulative baseline conditions are defined as Background Conditions (existing plus approved trips) plus traffic generated by projects for which development applications are pending but have not yet been approved. (The pending projects were identified by the City of Morgan Hill and are listed in the traffic report in Appendix K and included in Section 5.0, Cumulative Impacts). The resulting traffic scenario is referred to as the Cumulative No Project Condition.

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Additional roadway improvements assumed under this scenario, at the direction of City staff, included: 1) At the Cochrane Road at Butterfield Boulevard intersection, a second westbound left-turn lane will be constructed by the City; 2) At the Cochrane Road/Sutter Boulevard intersection, the City will convert the right-turn lane on the eastbound approach to a shared through/right-turn lane, and convert the northbound Sutter Boulevard through lane on the approach to Cochrane Road to a shared through/right-turn lane.

Intersection level of service calculations compared the Cumulative No Project Condition to the Cumulative Plus Project Condition in order to determine the project's cumulative impacts. The analysis found that the proposed project would result in a significant impact at the Cochrane Road/Mission View Drive intersection, where levels of service would degrade from acceptable LOS B or C (depending on the peak hour) to unacceptable LOS F during all peak hours. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

It should be noted that the Dunne Avenue/Monterey Road intersection is expected to operate at an unacceptable LOS D under both Cumulative No Project and Cumulative Plus Project Conditions. However, since the increase in critical delay resulting from project traffic is less than four seconds, there is no impact under the City's criteria, as set forth above. The remaining intersections are projected to operate at acceptable levels of service (LOS D+ or better) during all peak hours. (See traffic report in Appendix K for LOS table and further discussion.)

**MM 3.12-11** At the Cochrane Road/Mission View Drive intersection, a traffic signal shall be installed with protected left-turn phasing on all approaches. In addition, this intersection shall be reconfigured to include the following geometry:

- The northbound approach should include one left-turn lane and one shared through/right-turn lane.
- The westbound approach should include one left-turn lane, one through lane, and one shared through/right-turn lane.
- The southbound approach should include one left-turn lane, one shared through/right-turn lane, and one right-turn lane.
- The eastbound approach should include one left-turn lane, one through lane, and one right-turn lane.

Implementation of this mitigation measure would improve the level of service at the Cochrane Road/Mission View Drive intersection to acceptable levels (LOS D+ or better) under Cumulative conditions. Therefore, the proposed project would result in a **less than significant cumulative impact**.

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### Cumulative Freeway Level of Service Impacts

**Impact 3.12-12** The addition of project-generated traffic would have a **significant cumulative impact** on the level of service at the segment of U.S. Highway 101 between Tennant Avenue and Dunne Avenue.

As discussed above under Impact 3.12-11, Cumulative Plus Project Conditions are defined as Background Conditions (existing plus approved trips) plus traffic generated by projects for which development applications are pending but have not yet been approved, plus traffic generated by the proposed project. Since no capacity improvements are planned or programmed for the segments of U.S. Highway 101 in the project vicinity, the freeway segment between Tennant Avenue and Dunne Avenue would continue to operate at LOS F in the AM peak hour under Cumulative Plus Project Conditions. The capacity for the segment of U.S. Highway 101 between Tennant Avenue and Dunne Avenue is 6,900 vehicles. The project is anticipated to generate 87 trips along this segment during the AM peak hour, which represents an increase in volume of 1.26 percent. Since the traffic volume generated under this scenario would add volume greater than one percent to this freeway segment, this would represent a **significant cumulative impact**.

### Mitigation Measure

**MM 3.12-2** The project shall implement the applicable actions listed in the *Immediate Implementation Action List* contained in the *Deficiency Plan Guidelines* of the County's Congestion Management Program, which are intended to encourage the use of non-automobile transportation modes and to help maximize the efficiency of the existing transportation system.

The *Immediate Implementation Action List* comprises a general listing of the types of the measures which can be implemented by project sponsors and/or lead agencies. The listed actions which can be implemented at the project-specific level include: improvements to bicycle and pedestrian facilities; improvements to public transit facilities; and information programs to encourage TDM (Transportation Demand Management) measures such as carpooling. (The full list is contained in Appendix H of the traffic report which is contained in Appendix K of this EIR.) The proposed project would implement several of these action items, either as part of the proposed project or as mitigation measures (for transportation and/or air quality impacts) identified elsewhere in this EIR. These actions include:

- Pedestrian circulation system improvements including sidewalks along project frontages, crosswalks at adjacent intersections and project driveways, internal project sidewalks and marked pedestrian paths providing internal pedestrian circulation;
- Bicycle system improvements including dedication of right-of-way for Class II bike

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lane along project street frontages, and installation of on-site bicycle storage facilities;

- Transit improvements such as provision of transit stop on project Cochrane Road frontage, and posting of transit schedule and fare information on project employers' bulletin boards;

However, the implementation of these measures would not reduce the cumulative plus project traffic contribution to this freeway segment to less than one percent of current volumes. Therefore, the impact would not be reduced to less-than-significant levels and the cumulative plus project traffic would result in a **significant and unavoidable cumulative impact** to this freeway segment.

#### Intersection Level of Service Impacts – General Plan Buildout Conditions

**Impact 3.12-13** With the addition of project-generated traffic, significant impacts would occur at two intersections under General Plan Buildout Conditions, as follows:

- a) The Cochrane Road/Butterfield Boulevard signalized intersection is projected to operate at unacceptable LOS E- during the AM peak hour, and at unacceptable LOS F during the PM peak hour under General Plan Buildout Conditions. This is considered a **significant cumulative impact**.
- b) The Cochrane Road/Cochrane Plaza signalized intersection is expected to operate at unacceptable LOS D during the PM peak hour under General Plan Buildout Conditions. This is considered a **significant cumulative impact**.

This scenario analyzes traffic operations under 2025 General Plan Conditions. This scenario includes the proposed General Plan Amendment to eliminate the Cochrane Road-to-Burnett Avenue connection via the northern extension of De Paul Drive, and replace it with a parallel connection via Mission View Drive located approximately 800 feet to the northeast of the project site. Thus, for purposes of the traffic analysis, General Plan Buildout Conditions are defined as traffic volumes estimated for buildout of the *City of Morgan Hill General Plan* (Year 2025) plus traffic associated with the proposed project (i.e., based on refinement of model assumptions for site development), and assuming the above change to the General Plan Circulation Element. (The analysis assumes a number of other major roadway improvements to be in place under this scenario, as described in the traffic report in Appendix K).

The operations of the eight key intersections on Cochrane Road were evaluated for level of service impacts. Operations at the remaining seven study intersections are not expected to

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change as a result of the proposed General Plan Amendment and thus were not evaluated in detail by Fehr and Peers Associates. The results indicate that the Cochrane Road/Butterfield Boulevard (during both peak hours) and the Cochrane Road/Cochrane Plaza (during PM peak hour) are expected to operate at unacceptable levels under General Plan Buildout Conditions.

The remaining intersections are projected to operate acceptably during the AM and PM peak hours. Although the project's peak trip generation occurs on Saturday, the combination of project traffic and other cumulative traffic is lower on weekends than during the weekday commute hours. Accordingly, weekend peak hour operations were not analyzed.

Intersections operating at unacceptable levels under General Plan Buildout Conditions will require modifications in order to operate at acceptable levels of service. Implementation of the following mitigation measure would reduce this significant impact to a **less than significant level**.

#### Mitigation Measure

**MM 3.12-13** The following intersection modifications are identified to provide acceptable operations under General Plan Buildout Conditions:

- a) Cochrane Road/Butterfield Boulevard. For the intersection to operate at LOS D+ or better during the AM and PM peak hours, the General Plan configuration for the intersection would require the following modifications:
  - Northbound approach: increase number of left-turn lanes from one to two; increase the number of through lanes from one to two; reduce the number of right-turn lanes from two to one.
  - Eastbound approach: add a free right-turn lane.
- b) Cochrane Road/Cochrane Plaza. For the intersection to operate at LOS D+ or better during the PM peak hour, the General Plan configuration for the intersection would require the following modifications:
  - Southbound approach: increase number of left-turn lanes from one to two; change the shared left/through lane to a through lanes; keep the number of right-turn lanes at one.

To implement the above mitigation measures, the applicant will be required to pay impact fees which reflect the project's fair share of improvement costs.

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#### REFERENCES/DOCUMENTATION

Fehr & Peers Transportation Consultants. *Draft Traffic Impact Report – Cochrane Road PUD, Morgan Hill*. July 2005.

Morgan Hill, City of. *Morgan Hill General Plan*. July 25, 2001 (Updated July 2004).

Morgan Hill, City of. *Morgan Hill General Plan, Draft Master Environmental Impact Report*. March 22, 2001.